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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/789,765	02/27/2004	Ogden Hadzizukic	1139-003C1	1900
25215	7590	01/12/2006	EXAMINER	
DOBRUSIN & THENNISCH PC 29 W LAWRENCE ST SUITE 210 PONTIAC, MI 48342			FASTOVSKY, LEONID M	
			ART UNIT	PAPER NUMBER
			3742	

DATE MAILED: 01/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/789,765

Applicant(s)

HADZIZUKIC ET AL.

Examiner

Leonid M. Fastovsky

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steuart in view of Davidson (6,197,043).

Steuart teaches a heated handle-**steering wheel**, comprising a core 1, an outer covering 5, a heater 6 disposed between the core and the outer covering and inherently includes plurality of protrusions corresponding to spokes 2, the heater 6 including a cushion-sheath 7 and a separator 18 both made out of asbestos and a heater wire-conductor 6 between the cushion and the separator, the heating element being of pattern (zig-zag) that is inherently elongatable along with the sheath (Fig. 1-4,col. 2, lines 78-107, col. 3, lines 19-39). However, he does not disclose an elongation range of the heater, cushion and separator.

Davidson discloses an isoelastic polymer material 18 inherently made of compressible foam polyurethane and a core 22 made of polyester that can stretch-elongate up to 1000% and 100% respectively (col. 3, lines 1-26, col. 5, lines 21-50, col. 6, lines 36-46) and therefore is an analogous art concerned with stretching-elongation.

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It would have been obvious to one having ordinary skill in the art to modify Steuart's invention to make the cushion and the separator from polyurethane as taught by Davidson in order to permit elongation of the cushion and the separator at least 50%.

While Steuart does not explicitly disclose 15% elongation, one of ordinary skill in the art would have been able to arrive at this percentage of elongation without undue experimentation.

2. Claims 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steuart in view of Masubuchi (6,472,442).

Steuart teaches a heated handle-**steering wheel**, comprising a core 1, an outer covering 5, a heater 6 disposed between the core and the outer covering and inherently includes plurality of protrusions corresponding to spokes 2, the heater 6 including a cushion-sheath 7 and a separator 18 both made out of asbestos and a heater wire-conductor 6 between the cushion and the separator, the heating element being of pattern (zig-zag) that is inherently elongatable along with the sheath (Fig. 1-4, col. 2, lines 78-107, col. 3, lines 19-39). However, he does not disclose an elongation range of the heater, cushion and separator. Masubuchi discloses a steering wheel comprising a rim part 14 covered by compressible polyurethane elastomer 22 that can stretch-elongate up to 800% (Abstract, Fig. 1, col. 5, lines 21-50, col. 6, lines 36-46) and therefore is an analogous art concerned with stretching-elongation.

It would have been obvious to one having ordinary skill in the art to modify Steuart's invention to make the cushion and the separator from polyurethane as

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taught by Masubuchi in order to permit elongation of the cushion and the separator at least 50%.

While Steuart does not explicitly disclose 15% elongation, one of ordinary skill in the art would have been able to arrive at this percentage of elongation without undue experimentation.

3. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Steuart in view of Davidson and further in view of Kurata et al.

Steuart in view of Davidson discloses substantially the claimed invention, but does not disclose distinct zones. Kurata shows two distinct zones (Col. 5, lines 25-30). It would have been obvious to one having ordinary skill in the art to modify the invention of Steuart in view of Davidson to use distinct zones as taught by Kurata and increase their number to three zones for redundancy in case one or two zones are damaged.

4. Claims 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steuart in view of Davidson and further in view of Sugiyama et al and Nagai (6,808,825).

Steuart in view of Davidson discloses substantially the claimed invention, but does not disclose a conductor made out of a plurality of wire strands having a diameter between about 0.007 mm and 0.011 mm and the strands are formed of a metal alloy of copper about 1% and 10% nickel.

Sugiyama discloses a heater 21 for a steering wheel-handle 1 and a strand of wires 28 with a diameter of 0.05-0.10 mm and made of copper nickel alloy (col. 5,

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lines 29-39) without disclosing a percentage of materials in the composition of the alloy.

Nagai discloses a copper nickel alloy foil that can be used as a conductor having copper up to 1% and nickel up to 2.5% (col. 4, lines 5-50).

It would have been obvious to one having ordinary skill in the art to modify the invention of Steuart in view of Davidson to include the strands of heating wire as taught by Sugiyama for better strength and in a composition as taught by Nagai as an obvious functional equivalent.

5. Claims 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over steuart in view of Davidson and further in view of Plummer et al (6,284,809). Steuart in view of Davidson discloses substantially the claimed invention including the cushion 5 that is closer to the core 4 than the separator 12 and the conductor 13, can be folded over on itself, but does not disclose a heat transfer coefficient. Plummer discloses a resin for a synthetic foam composition having a thermal conductivity less than 0,12 watts/m K (col. 2, lines 58-62), the resin comprise polyurethanes and polyesters (col. 3, lines 57-65). It would have been obvious to one having ordinary skill in the art to modify the invention of Steuart in view of Davidson to include a conductor twisted at a connection of the heater 7 as an obvious design choice, and a thermal conductivity range as taught by Plummer as an obvious functional equivalent of a heat transfer coefficient.

6. Claims 29-30 rejected under 35 U.S.C. 103(a) as being unpatentable over Steuart in view of Davidson and further in view of Haag.

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Steuart in view of Davidson discloses substantially the claimed invention, but does not disclose that the cushion is laminated to the separator with an adhesive. Haag teaches a heated steering wheel with a heating element 28, wherein the cushion 24 is laminated to the separator 30 with an adhesive (col. 4, lines 40-50). It would have been obvious to one having ordinary skill in the art to modify the invention of Steuart and Davidson to include an adhesive as taught by Haag in order to better secure the structure of the heated wheel.

7. Claims 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steuart in view of Davidson and further in view of Kurata.

Steuart in view of Davidson discloses substantially the claimed invention including a heating element 6 having zig-zag configuration as disclosed by Steuart, but does not disclose distinct zones. Kurata shows two distinct zones (Col. 5, lines 25-30). It would have been obvious to one having ordinary skill in the art to modify the invention of Steuart in view of Davidson to use distinct zones as taught by Kurata and increase their number to three zones for redundancy in case one or two zones are damaged.

8. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Steuart in view of Davidson and Kurata and further in view of Sugiyama and Nagai.

Steuart in view of Davidson and Kurata discloses substantially the claimed invention, but does not disclose a conductor made out of a plurality of wire strands having a diameter between about 0.007 mm and 0.011 mm and the strands are formed of a metal alloy of copper about 1% and 10% nickel.

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Sugiyama discloses a heater 21 for a steering wheel-handle 1 and a strand of wires 28 with a diameter of 0.05-0.10 mm and made of copper nickel alloy (col. 5, lines 29-39) without disclosing a percentage of materials in the composition of the alloy.

Nagai discloses a copper nickel alloy foil that can be used as a conductor having copper up to 1% and nickel up to 2.5% (col. 4, lines 5-50).

It would have been obvious to one having ordinary skill in the art to modify the invention of Steuart in view of Davidson and Kurata to include the strands of heating wire as taught by Sugiyama for better strength and in a composition as taught by Nagai as an obvious functional equivalent.

9. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Steuart in view of Davidson and Kurata and further in view of Plummer.

Steuart in view of Davidson and Kurata discloses substantially the claimed invention including the cushion 7 that is closer to the core 1 than the separator 18, but does not disclose a heat transfer coefficient. Plummer discloses a resin for a synthetic foam composition having a thermal conductivity less than 0,12 watts/m K (col. 2, lines 58-62) that corresponds to a heat transfer coefficient, the resin comprise polyurethanes and polyesters (col. 3, lines 57-65). It would have been obvious to one having ordinary skill in the art to modify the invention of Steuart, Masubuchi, Hasegawa and Kurata to include a thermal conductivity range as taught by Plummer in order to operate the heated steering wheel without using an additional power.

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10. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Steuart in view of Davidson and Kurata and further in view of Haag.

Steuart in view of Davidson and Kurata discloses substantially the claimed invention, but does not disclose that the cushion is laminated to the separator with an adhesive. Haag teaches a heated steering wheel with a heating element 28, wherein the cushion 24 is laminated to the separator 30 with an adhesive (col. 4, lines 40-50). It would have been obvious to one having ordinary skill in the art to modify the invention of Steuart in view of Davidson and Kurata to include an adhesive as taught by Haag in order to better secure the structure of the heated wheel

11. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Steuart in view of Davidson, Kurata and further in view of Noda, Plummer, Sugiyama and Nagai.

Steuart in view of Davidson, Kurata discloses substantially the claimed invention including two distinct zones disclosed by Kurata (col. 5, lines 25-30), but does not disclose a leather outer cover, heat transfer coefficient, three distinct zones, a conductor made out of a plurality of wire strands having a diameter between about 0.007 mm and 0.011 mm and the strands are formed of a metal alloy of copper about 1% and 10% nickel.

Noda discloses a heated steering wheel with a leather outer cover 21.

Plummer discloses a resin for a synthetic foam composition having a thermal conductivity less than 0,12 watts/m K (col. 2, lines 58-62) that corresponds to a heat transfer coefficient, the resin comprise polyurethanes and polyesters (col. 3,

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lines 57-65). It would have been obvious to one having ordinary skill in the art to modify the invention of Steuart in view of Davidson and to include a thermal conductivity range as taught by Plummer in order to operate the heated steering wheel without using an additional power

Sugiyama discloses a heater 21 for a steering wheel-handle 1 and a strand of wires 28 with a diameter of 0.05-0.10 mm and made of copper nickel alloy (col. 5, lines 29-39) without disclosing a percentage of materials in the composition of the alloy.

Nagai discloses a copper nickel alloy foil that can be used as a conductor having copper up to 1% and nickel up to 2.5% (col. 4, lines 5-50).

It would have been obvious to one having ordinary skill in the art to modify the invention of Steuart in view of Davidson to include a leather outer cover as taught by Noda as an alternative choice, to increase the number of distinct zones to three instead of two as taught by Kurata for safety in case one or two zones are damaged, and also include the strands of heating wire as taught by Sugiyama for better strength and in a composition as taught by Nagai as an obvious functional equivalent.

12. Claims 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steuart, Davidson, Noda, Kurata, Plummer, Sugiyama and Nagai and further in view of Haag.

Steuart in view of Davidson, Noda, Kurata, Plummer, Sugiyama and Nagai discloses substantially the claimed invention, but does not disclose that the cushion is laminated to the separator with an adhesive and a two way tape. Haag

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teaches a heated steering wheel with a heating element 28, wherein the cushion 24 is laminated to the separator 30 with a double adhesive tape 25 (col. 4, lines 40-50). It would have been obvious to one having ordinary skill in the art to modify the invention of Steuart, Davidson, Noda, Kurata Plummer, Sugiyama and Nagai to include a double adhesive tape as taught by Haag in order to better secure the structure of the heated wheel.

Response to Arguments

13. Applicant's arguments with respect to claims 21-40 have been considered, but they are not persuasive. Prior art of Steuart, Davidson and Masubuchi is the analogous art that includes stretching-elongation of the polyurethane,

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonid M Fastovsky whose telephone number is 571-272-4778. The examiner can normally be reached on M-Th. 8.00 am -6.00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on 571-272-4777. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Leonid M Fastovsky
Examiner
Art Unit 3742

1/4/05

lmf



ROBIN EVANS
SUPERVISORY PATENT EXAMINER

1/9/06